The Conceptualisation of a Tourist Resilience Scale (TouRes): The Development and Validation of a New Measure

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A Dissertation submitted in partial fulfilment of the requirements for the Degree of

Masters of Science in Applied Psychology

at the University of Canterbury

Miriam Gottschalk

2021

Research Supervisors

Dr Joana Kuntz, University of Canterbury

Dr Girish Prayag, University of Canterbury

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Acknowledgements

Firstly I would like to thank my supervisors Dr Joana Kuntz and Dr Girish Prayag for guiding me throughout this thesis writing process with their expertise, valuable feedback and overall support in academic and personal matters.

I would also like to thank my partner Peter for encouraging me to undertake this career path as well as always having my back when I needed it. Also I am thankful to the amazing APSY cohort I was part of, being in their company was uplifting and inspiring especially during challenging times.

Lastly I would like to thank everyone who participated in this study and all my friends and family in New Zealand and overseas who helped recruit participants, without their contribution this thesis would not have been possible.

Abstract

Resilient tourists may have a higher tendency than other travellers to continue travel plans and enjoy tourism experiences despite experiencing adverse events. The corresponding need to understand and measure the concept of tourist resilience guided the scale development process in this study. A resilient tourist may be defined as an individual outside of their usual environment who is able to demonstrate control, coherence and connectedness in the face of adversity by preparing for and adapting to adverse circumstances. The six dimensions of Tourist Resilience proposed in this study are adaptiveness/control, adaptiveness/coherence, adaptiveness/connectedness, preparedness/control preparedness/coherence and preparedness/connectedness. Confirmatory factor analysis provided an acceptable fit for an 18-item solution distributed over the six factors. Tests of discriminant and convergent validity suggest that TouRes is related to, yet distinct from trait resilience and proactive personality. Lastly, this study provides evidence for the positive association between tourist resilience and destination attachment, demonstrating some potential positive outcomes in applied tourism settings. Further research is needed to fully establish the generalisability and validity of this scale.

Keywords: Tourist Resilience, Adaptiveness, Preparedness, Resilience, Proactive Personality, Crisis Management, Scale Validation

Introduction

Disasters such as the COVID-19 pandemic have major negative impacts on the tourism industry. Travel restrictions due to the pandemic had an immediate effect on national economies worldwide and especially on tourism, including international and domestic travel, land and air transport, cafes, restaurants and accommodation providers, conferences, sport events, and festivals (Gössling, Scott & Hall, 2020). On a global scale, the United Nations World Tourism Organization estimates a decline of up to a 80% in tourism numbers, a possible loss of US$1.2 Trillion in tourism export revenues and a risk of up to 120 million direct tourism job losses by the end of 2020 (UNWTO, 2020).

New Zealand implemented drastic travel restrictions following the pandemic announcement, shutting down all international tourism and restricting domestic tourism from March 2020 onwards. Prior to the pandemic, tourism generated an annual and direct contribution of approximately 6% ($16 billion) and an indirect contribution of 4% ($11 billion) to New Zealand's overall GDP. Furthermore, within the past 6 years the annual tourism expenditure had increased by 50% (TIA, 2020). Total tourism expenditure was $40.9 billion for the year ending in March 2019; a $1.6 billion increase from the previous year and a GDP contribution of $16.2 billion (5.8 %) to the country (Statistics New Zealand, 2020).

In July 2020, overseas visitor arrivals were down from 251,000 in the same month in 2019 to 3,800 (MBIE, 2020). According to a survey conducted by Tourism Industry Aoteraoa (2020), of the 27,635 fulltime tourism employees that were usually hired in April, only half were employed, resulting in 13,668 fulltime jobs lost. When applying this ratio across the 393,000 people directly or indirectly employed by tourism in New Zealand the gravity of this impact becomes clear, especially when

comparing it to its relatively small population size of 4.9million (Tourism Industry Aoteraoa, 2020).

Tourism declines not only as a result of imposed restrictions due to national safety or security concerns, but also as a result of tourists' and operators' inability to adequately prepare for crises, and adapt in the face of uncertainty, i.e., resilience (Butler, 2017; Rivera& Kapucu, 2015). As a result, there is growing interest in resilience literature that examines tourism operators' ability to manage crises. Crisis management planning studies explore reasons for lack of planning (e.g. Ghaderi, Mat Som& Wang, 2014; Okumus, Altinay & Arasli, 2005), factors influencing successful tourism crisis planning (Pennington-Gray et al., 2011; Wang& Richie, 2012) and risk analysis as well as scenario planning (Orchiston, 2012; Yeoman, Galt& Mcmahon-Beattie, 2005). Resilience in the tourism context describes the capacity of a tourism system to deal with stressors and maintain a tourism-related regional economy (Nelson, Adger, & Brown, 2007). As developing resilient tourism is key in establishing systems that can better adapt to unexpected changes, attracting resilient tourists may be one of the main contributors in achieving this goal. However, little research has been conducted on resilient tourists who are typically instrumental in reducing the market share losses that are experienced when destinations are hit by disasters (Hajibaba et al., 2015). Ultimately it raises the question of what is a resilient tourist and what factors contribute to or undermine tourist resilience?

In a post-pandemic scenario, resilient tourists may be the type of travellers who are more inclined to resume their tourism activities once travel restrictions ease. In essence, resilient tourists may be less susceptible to uncertainty and challenges, and maintain their intention to travel and enjoyment of tourist activities through or despite adversity. Hence, these tourists represent a valuable asset to tourism providers and

destinations, and more research is needed to arrive at a clear definition of tourist resilience, to identify and assess the behaviours enacted by travellers that demonstrate resilience, and to uncover the nomological domain of tourist resilience.

This research advances an operational definition of tourist resilience, and outlines the development of a Tourist Resilience Scale (TouRes Scale), intended to inform tourism businesses' approaches to capitalising on, or further developing, tourist resilience. Study 1 draws on the elements of control, coherence and connectedness proposed by Reich (2006) and the overarching dimensions of adaptiveness and preparedness. Study 1 outlines the development and validation of a Tourist Resilience Scale (TouRes). Study 2 tests the convergent and discriminant validity of the TouRes scale against theoretically related constructs (i.e. individual resilience and proactive personality), and offers preliminary insights into its relationship to outcomes of interest, namely destination attachment.

Literature review

Resilience is a vast and increasingly multi-disciplinary area of research, and there is much debate and little consensus on a single definition of resilience (Butler, 2017). The ecologist C.S. Holling was the first to propose a theory of resilience in 1973, which theoretically describes the interplay of systems in society, the environment and economics (Cochrane, 2010). Hollings (1973) explains that ecological systems can fluctuate and have margins within which they can fluctuate without losing their inherent function.

The term 'social resilience' emerged as the theoretical underpinnings of the early resilience literature were applied more broadly to social systems, to explore and better understand the social and institutional processes responsible for a greater capability to withstand external challenges (Adger, 2000).

The concept of social-ecological resilience was coined shortly after, being defined by three main characteristics. The first is the amount of change a system can withstand while still being able to function, the second is the degree to which a system is able to self- organise, and the third is the degree to which a system has the ability to learn and adapt (Carpenter, Walker, Anderies& Abel, 2001; Folke, 2006; Walker et al., 2012). Insights of socio-ecological resilience have been utilised in the tourism literature not only to comprehend tourism system resilience but also to better understand the resilience of its separate components, including tourism destinations, organisations and tourists. Becken (2013) argues that knowledge on how to improve the adaptive capacity of a system enables the continued functioning of a tourism system, in particular in its role of generating economic and social benefits in the long term.

People and organisations are the building blocks of resilient tourism systems (Hall, Prayag & Amore, 2017) and understanding traveller motivations and behaviours is crucial to establish more resilient tourism systems that have a greater capacity to adapt to change, attract more resilient tourists, and hence to reduce market share losses. Attracting a more resilient client base as well as supporting tourists to become more resilient in return feeds back into the resilience of the tourism system overall. For example, resilient tourists relative to less resilient travellers may be less likely to hold a negative overall perception of their tourism experience, despite experiencing some sort of adversity. In addition, resilient tourists may be more likely to become advocates of the travel destinations they visited as well as return to those destinations in the future (Hall, Prayag& Amore, 2017). Both of these features are examples of how resilient tourists may strengthen the adaptive capacity of tourism destinations. This study sets out by examining individual resilience to establish the

foundations of tourist resilience, which so far has been a scarcely explored construct in the literature.

From individual resilience to tourist resilience

The concept of individual resilience has been discussed widely across numerous fields, namely psychology (e.g. Fisher& Ragsdale, 2019; Jackson, Firtko & Edenborough, 2007; Pangallo, Zibarras, Lewis& Flaxman, 2015; Luthar, Cicchetti& Becker, 2000) education and health (e.g. Sadeghifard et al., 2020; Henderson et al. 2018; Watling, 2015), and tourism and disaster planning (e.g. Hall, Prayag & Amore, 2017; Paton & Johnston, 2017; Reich, 2006).

Across research fields, scholars have viewed individual resilience to be either trait-like or state-like (Fisher& Ragsdale, 2019; Bryan, O'Shea & MacIntyre, 2019; Oshio, Taku, Hiran& Saed, 2018; Wright, Masten& Narayan, 2013). The first perspective proposes that individual resilience is an ability or trait that allows the individual to deal with and adjust positively in the face of adversity (Connor& Davidson, 2003; Jackson, Firtko& Edenborough, 2007; Ong, Bergeman, Bisconti, & Wallace, 2006). Advocates of a view of trait resilience portray it as a relatively stable trait that is characterised by one's ability to steer through, overcome, and bounce back from adverse situations (Block & Kremen, 1996). Some studies have discussed the role of a number of genetic factors and neurotransmitters that are more common in resilient individuals, including higher levels of neuropetide-Y, an increased DHEA-to-cortisol ratio and an enhanced immune response (e.g., Reichmann & Holzer, 2016; Russo, Murrough, Han, Charney, & Nestler, 2012; Sandvik et al., 2013). Yu et al. (2020) suggest that genetics, in particular polygenotypes of the dopamine, oxytocin and serotonin genes play a moderating role in the trait resilience of an individual. Belsky and Pluess (2009) argue that when a person is negatively affected by their

environment their genetic make-up may become a protective factor. Furthermore, different personality traits such as higher levels of agreeableness, conscientiousness, openness, extraversion and emotional stability have been associated with higher levels of trait resilience (Oshio, Taku, Hirano & Saeed, 2018). Other personal qualities such as optimism, self-efficacy, motivation, coping skills and self-determination consistently seem to be more common in resilient individuals (Bryan, O'Shea & MacIntyre, 2019; Peterson, 2000; Farber, Schwartz, Schaper, Moonen, & McDaniel, 2000; Masten & Reed, 2002) and are argued to be vital components of trait resilience (Ong et al., 2006).

Other researchers describe resilience to be a dynamic process marked by disruption and reintegration in the environment that allows an individual to positively adapt following an adverse experience (Luthar, Cicchetti & Becker, 2000). As part of this perspective, resilience may be understood as a state, implying that it can change, be developed and managed (King, Newmans & Luthans, 2015). It is often coined the 'process' view of resilience and as part of this perspective the focus is on the internal and external resources an individual may use to enhance positive adaption in the face of adversity (Montpetit, Bergeman, Deboeck, Tiberio & Boker, 2010). Ungar (2012) supports this view explaining that resilience is not just something individuals *have* but rather it is a process that is influenced by people's interaction with their external environment, and the context defines the circumstances under which personal traits contribute to individual resilience.

Within the context of this study, a process definition of individual resilience seems most suitable as this conceptualisation acknowledges that internal traits and external resources (e.g. social networks, community) interact to influence individual resilience (Berkes & Ross, 2013; Hall & Lamont, 2013). Therefore, the following

definition of individual resilience is utilised as a starting point to understand tourist resilience within this study: “the process of effectively negotiating, adapting to, or managing significant sources of stress or trauma using assets and resources within the individual, their life and environment that facilitate this capacity for adaptation and bouncing back in the face of adversity” Windle (2011, p.152).

Research has consistently demonstrated that individuals with higher levels of resilience have better physical (Connor& Davidson, 2003; Yi, 2006; Ong, Zautra& Reid, 2010) and mental health outcomes (Yi, 2006; Hu, Zhang& Wang, 2015). Resilient individuals experience greater levels of psychological wellbeing (Beasley, Thompson& Davidson, 2003), greater levels of life satisfaction (Liu, Wang&Li, 2012; Hu, Zhang& Wang, 2015), lower rates of anxiety and depression as well as consistently portray higher levels of positive affect (Hu, Zhang and Wang, 2015). Importantly in the context of tourism experiences, resilient individuals tend to have a more positive outlook towards their life (Tugade & Frederickson, 2004) and tend to possess higher levels of confidence in their abilities to cope in difficult situations (Buikstra et al., 2010). They are capable of using robust problem-solving skills to deal with challenges, as well as learn and grow from them (Bryan, O’Shea & MacIntyre, 2019).

In the discussion of individual resilience and tourist resilience it should be kept in mind that people vary greatly in the ways they react and respond to stressors in their environment (Ajduković, Kimhi & Mooli, 2015). For example in their study Mandavia & Bonanno (2019) found that a majority of participants who experienced a natural disaster were not significantly affected in their resilience response whereas a smaller group of participants was dramatically affected. While the exposure to adversity may lead some individuals to become greatly distressed, potentially

affecting their mental and physical health in the long-term, others seem more resilient when experiencing a similar type and level of risk (Crane, Searle, Kangas & Nwiran, 2019; Russo et al. 2012; Rutter, 2006). It is the interplay of different environments, as well as diverse genetic and biological processes that elicit vulnerability or resilience in individuals when experiencing adversity (Ajduković, Kimhi & Mooli, 2015; Feder, Nestler, & Charney, 2009; Ising& Holsboer, 2006). An individual's resilience response is shaped by their cognitive appraisal of how severe an adverse experience is (Yao& Hsieh, 2019). It is the interplay of what the actual experience was and what the brain's modelled expectations were that lead to a more positive or negative response to adversity (Yao& Hsieh, 2019).

However the 'tourist' role is different from the 'everyday' role of an individual. Through tourism, individuals are seeking novelties, such as improvement, adjustment and a sense of purpose, which may suggest that the concepts of individual resilience and tourist resilience are related, yet reflect unique, context-dependent behaviours. In a tourism context, resilience is likely the upshot of individual differences interacting with the tourist's social and physical environment. External factors, such as the fact that being on holiday is generally argued to contribute to life satisfaction and mental wellbeing (Gilbert & Abdullah, 2004; McCabe & Johnson, 2013) may play a role in individual resilience when travelling. Furthermore experiencing social support (in particular friend support) and certain personality traits (e.g. protective factors such as a feeling in control, being committed, seeing challenges as opportunities) may play a key role in whether individuals act more or less resilient when experiencing stressful and/or traumatic events (Montpettit et al., 2010).

On Facebook, in response to COVID-19, a profile picture frame was offered

which users could add to their profile picture stating "#I am tourismstrong, postpone trips! Don't cancel". To postpone rather than cancel a trip may be the essence of a resilient tourist as they may be more likely to plan for contingencies and adapt their travels when they face unexpected events. Planning behaviours may be indicated in a person's contingency preparedness before and during a trip, getting informed about the specifics of a tourism destination, or purchasing travel insurance. Whether an individual is adaptive or not may be shown in their ability to quickly find solutions to problems, being flexible in one's travel itinerary, and/or 'going with the flow'.

Despite a common understanding that tourists play a vital role in any tourism system, limited research has been conducted on tourist resilience and its relation to the overall tourism system (Hall, Prayag & Amore, 2017). An interdisciplinary approach to conceptualising and measuring tourist resilience, which incorporates insights from psychology, tourism management, crisis and disaster research as well as related fields informs the conceptualisation of tourist resilience in this paper and highlights the need for a measurement tool that captures resilient tourist behaviours. As part of this approach evidence based literature from disaster research provides some valuable insights into factors that may have an impact on tourist resilience in the face of adversity (Fountain& Cradock-Henry, 2020; Butler, 2017).

Tourist Resilience

The operational definition of tourist resilience used in this study draws on the 3 Cs of resilience in post-disaster settings, i.e. control, coherence and connectedness as proposed by Reich (2006) and applied in a tourism context by Fountain and Cradock-Henry (2020). Furthermore the concept of Tourist Resilience in this paper reflects upon the ideas of the Conservation of Resource Theory proposed by Hobfoll (1989). Lastly adaptiveness and preparedness principles in the sphere of tourism

resilience guide the foundational framework of this study.

The 3 Cs of resilience: Control, Coherence and Connectedness

Reich's (2006) conceptual paper draws on research from the social sciences to describe components of human resilience that may occur in the face of human-made or natural disasters. These three core elements of human resilience in post disaster settings, namely control, coherence and connectedness (the 3 Cs) represents an important framework that is utilised in this study to inform the operational definition of tourist resilience.

Control refers to the need to regain personal control over environmental stressors, an important factor in an individual's resilience response to disaster. For example, after experiencing Hurricane Katrina in 2005, survivors placed a top priority on restarting their life's by rebuilding their homes and business, finding new jobs and establishing new routines (Hrostowski & Rehner, 2012). These activities allowed people to regain personal control, by providing them with the opportunity to reset their own goals and structures as well as gain back decision power over their own lives (Reich, 2006). The effort to regain personal control is a fundamental psychological key to bouncing back in the aftermath of an adverse experience (Reich, 2006). It is suggested that an individual's resilience can be improved when a person is capable of regaining control on the availability and accessibility of resources (Dooley, Slavich, Moreno & Bower, 2017; Russo et al. 2012; Ungar, 2012). Being able to adapt promptly to or recover mentally from unexpected changes while travelling may be examples of adaptivness strategies that allow an individual to quickly regain personal control when adversity hits. Furthermore planning activities, such as arranging Plan B options or preparing for potential risks and dangers in the tourism environment allow the individual to regain personal control quickly in case adversity

strikes.

Coherence refers to the need to make sense of a situation, which is linked to uncertainty reduction (Berlyne, 1963). After the Sumatran Tsunami in 2004, survivors called out for water and food but they were also looking for explanations to their plight. People looked for answers to questions such as: Where is my family? Is someone coming to help me? Is my home affected? (The Guardian, 2014). According to Zautra (2003) people function best when they their emotional, behavioural, and cognitive capacities are maintained and experiencing major adversity destroys the familiar, creates behavioural disruption and cognitive disorder. In this study, it is argued that the drive for coherence may be a fundamental element to tourist resilience. It might allow the individual to stay focused and calm when being faced with difficulties and bounce back quickly when experiencing adverse situations, reflected for example in an individuals ability to stay flexible in their tourist itinerary and 'go with the flow' while travelling.

Connectedness refers to the need for people to connect with others following a crisis, as humans are inherently social beings. It was found that social support plays a protective role in individual health and wellbeing when experiencing stressful events (Montpetit et. al, 2010; Bergeman& Wallace, 1999; Cohen& Wills, 1985). Furthermore stronger social ties are related to better neuroendrocine functioning (Berkman et al., 2000) and improved functioning of the cardiac system (Uchino et al., 1996). Allenby and Fink (2005) add that that fostering social bonds with others seems to be an important part in improving individual resilience. An example of the type of connections connected to resilience in a tourist setting may be helping others when they are in need which may lead to changes in once own travel plans, or comfortably asking a stranger for help when being faced with an issue while travelling.

The 3 Cs play a crucial part in the concept of tourist resilience in this study due to the importance that is placed on these factors for an effective resilience response in the face of adversity. In essence, the 3Cs describe the role of personal, social, and other environmental resources that are necessary in order to be resilient. The way that a person perceives these resources and their availability signals whether they are more or less resilient. The Conservation of Resources Theory offers further contributions to individual resilience in a tourism context as it dwells deeper into the ideas of how individuals view and utilise resources.

Tourist Resilience through the lens of Conservation of Resources Theory

Proposed by Hobfoll (1989), the basic tenet of The Conservation of Resources Theory (CoR) is that humans are motivated to protect their established resources (conservation) and strive to gain new resources deemed important (acquisition) (Filep, 2013; Halbsleben, Neveu, Paustin-Underdahl & Westman, 2014). Resources are defined as states, objects, conditions and other things that people value, such as money or close social connections (Hobfoll, 1988). A valued resource to one person may have no value to another person (Hobfall, 1988). An example of this may be going travelling with a close friend. While for some this may be absolutely essential in order to have a good time, others may prefer travelling alone in order to make the most of their tourism experience. Strain emerges when valued resources are under threat or lost after having invested in gaining them (Filep, 2013). Two main principles emerge from the basic tenet of CoR.

Firstly, the ‘primacy of resource loss’, often referred to as loss salience, is the idea that losing a valued a resource is psychologically more detrimental to individuals than it is helpful to gain the resources that were lost (Cacioppo & Gardener, 1999; Tversky & Kahneman, 1974). This principle has implications for the concept of

tourist resilience. It suggests that experiencing adversity when travelling can overshadow the positive experiences enjoyed during one's travels. However, resilience can balance positive and negative experience, reducing the salience of negative incidents. In this study, it is argued that resilient tourists are better positioned to overcome adversity than less resilient travellers, as they may be less psychologically affected by losing valued resources. An example from a tourism setting may be that being faced with a cancellation of a planned tourism activity is more detrimental to the travel experience of less resilient tourists.

The second principle that has emerged as part of the CoR is 'resource investment'. It states that humans invest in resources to protect themselves against resource losses, to recover from resource losses, and to gain resources (Hobfall, 2001). Researchers such as Ito & Brotheridge (2003) and Vinokur & Schul (2002) have typically assessed this phenomenon in the context of coping, proposing that coping is an investment strategy to stem future resource losses. Extending 'resource investment', it has been argued that individuals who have more resources to draw from are in a better position to gain resources and consequently individuals who have fewer resources to draw from are therefore more likely to experience resources losses (e.g. Demerouti, Bakker& Bulters, 2004; Whitman, Halbesleben& Holmes, 2014). To relate this back to this study, more resilient tourists may be better at coping with adversity due to their ability to prepare for it, for example by collecting the necessary resources to deal with adverse situations before they occur. This in return may help more resilient tourists, relative to less resilient travellers, to better adapt to unexpected or negative travel experiences, as well as benefit more from positive travel experiences. This in return may affect their tourist loyalty, such as being more attached to their destination, return to that destination, recommend it to others and

leave positive reviews.

The role of Adaptiveness and Preparedness in Tourist Resilience

CoR theory principles highlight that resilient tourists may be better equipped to cope with setbacks and to acquire new resources as needed, relative to less resilient tourists. Hence, a resilient tourist engages in risk management and *prepares* for potential adversity by building the resources necessary to cope with undesirable situations (e.g. always having a backup plan). A resilient tourist may also be someone who is able to quickly *adapt* to unexpected changes and 'go with the flow' for example due to their ability to acquire and develop social resources. The principles of adaptiveness and preparedness cut across the organisational and disaster resilience literature (e.g. Espiner & Orchiston, 2017; Linnenluecke, 2017; Paton & Johnston, 2017) and have been found to tie in well with the principles of connectedness, coherence and control proposed by Reich (2006).

Within organisational contexts individual resilience is often seen as the ability to recover from adversity but some scholars stress that in order to develop a resilient mindset individuals also need to develop their capabilities to prepare effectively for managing crisis in case it emerges (Kuntz, Malinen & Näswall, 2017; Linnenluecke, 2017). This element of preparation is based upon 'foresight' and Meyer (1982) defines that as an important component of resilience. Adaptive resilience in an organisational context is often seen as one's inherent capability to overcome significant stressors in the work environment (Nilakant et al., 2016). In a tourist resilience context similar ideas may apply, an effective resilience response may be in part an individuals inherent ability to adapt to adverse situations as well as their capabilities to demonstrate a level of foresight by preparing for adverse situations to effectively deal with a crisis in case it emerges.

Within the context of disaster research, particularly in the aftermath of a disaster those people that have readiness strategies in place have an increased ability to respond to crisis in a planned and functional way, rather than having to improvise (Paton & Johnston, 2017). Readiness strategies increase the likelihood of an adaptive response to the demands and challenges that people are faced with when disaster strikes (Paton & Johnston, 2017). In disaster settings an effective resilience response therefore seems to be more likely when individuals are prepared for potential adversity allowing them to adapt more promptly when adversity hits. An effective tourist resilience response may very well be based on the same principles, where preparation allows them to plan for crisis and adapt to it more rapidly when it emerges.

In their study, Hajibaba et al. (2015) established a socio-demographic profile for a crisis-resistant tourist. Their paper provides some valuable insights on the interplay of preparedness and adaptiveness that are relevant for the conceptual framework of this study. They suggested that crisis-resistant tourists exhibit two distinctive behaviours: they ‘go despite’ and they ‘don’t cancel because’. These tourists are highly involved in the travel planning and are therefore better equipped to adapt to unexpected change (Hajibaba et al., 2015). For tourism operators to best support tourists and continue to enjoy a profitable volume of travellers, there is a need to understand the individual and contextual factors that render some tourists more resilient than others. This knowledge provides tourism operators with a starting point to assess the resiliency levels of their customer base. Once the customer resilience profile has been established it enables organisations to actively target more resilient tourists through customising tourism products and communicate messages accordingly. Hajibaba et al. (2015) point out that crisis-resistant travellers are able to

recover more rapidly from adversity and they seem to be able to set their anxieties and worries aside even when experiencing a crisis that involves a level of risk that they have no control over. Overall, crisis- resistant tourists are highly involved in *planning* their travels and activities before their trips and *adapt* them throughout the journey (Hajibaba et al., 2015).

The tourist resilience items developed and tested in this research draw on preparedness and adaptiveness principles of resilience, and on behaviours that reflect or contribute to the development of personal, social and contextual resources. These behaviours in turn underpin a sense of control, coherence and connectedness in the face of uncertainty, new experiences, and adversity.

Tourist Resilience definition and framework

Fountain and Cradock-Henry (2020) have provided a first working definition of tourist resilience that builds on the insights of human resilience in post-disaster settings proposed by Reich (2006). A resilient tourist may be defined as "an individual outside of their usual social and physical environment who is able to demonstrate control and coherence in the face of a disaster event by negotiating and adapting to adverse circumstances and situations" (Fountain& Cradock-Henry, 2020, p.2). Resilient tourists are better equipped to utilise personal resources and connect with broader networks in the destination community (e.g. locals, service providers, other tourists) to overcome adversity. This study relies on Fountain's and Cradock-Henry' (2020) as well as Reich's (2006) work to derive a suite of behavioural tourist resilience items within control, coherence, and connection dimensions that incorporate the utilisation of personal, social, and tourism operator resources. The items in this study and the 3 Cs dimensions are linked to overarching preparedness and adaptiveness behavioural orientations highlighted in the resilience research.

The six dimensions are: Preparedness/Control, Preparedness/Coherence, Preparedness/Connectedness, Adaptiveness/Control, Adaptiveness/Coherence and Adaptiveness/Connectedness (Table 1). The definitions presented in Table 1 guided the item generation process for this study.

Table 1

The six dimensions of Tourist Resilience

Dimension	Description
Preparedness/Control	Behaviours that indicate preparedness to cope with potential stressors that may be present in the tourist environment, in order to quickly regain personal control in the event of experiencing unexpected changes while travelling, e.g. having contingency plans
Preparedness/Coherence	Behaviours that indicate preparedness to cope with potential stressors in the tourist environment by gathering information with the intent to minimise uncertainty and negative experiences while travelling, e.g. planning all aspects of the trip in advance
Preparedness/Connectedness	Behaviours indicating preparedness to cope with potential stressors by connecting with others in the tourism environment before travelling, e.g. selecting destinations where family or friends live
Adaptiveness/Control	Behaviours indicating the ability to promptly and successfully regain personal control when exposed to unexpected changes while travelling, e.g. finding it easy to identify suitable alternatives to accommodation or itinerary in case of disruption
Adaptiveness/Coherence	Behaviours indicating the ability to quickly minimise uncertainty or coping with negative experiences when faced with unexpected stressors, e.g. calmly finding a solution when unexpected changes arise while travelling
Adaptiveness/Connectedness	Behaviours that indicate the ability of connecting with people in the tourism environment while travelling to recover from adversity or enhance the travel experience, e.g. asking strangers for help when in need

In practice, resilient tourists have the personal resources in place to regain personal control of uncertain or novel travel situations, for example through planning

and preparing for potential hardships, having the ability to mentally overcome the challenges that they are faced with and move forward with their plans, and maximising positive travel experiences. Resilient tourists are able to manage uncertainty in adverse situations through their increased ability to prepare for difficulties they may encounter, and are capable of drawing on personal resources that are indicative of resilience such as a 'bouncing back attitude'. Lastly resilient tourists are able to establish networks and social ties within the destination community (e.g. local residents, tourism service providers, other tourists) before their travels as well as when required on their travels.

The present research

This research consists of two studies. Study 1 is concerned with the development and initial testing of a Tourist Resilience scale following the processes of research-based item pool generation, and item reduction using Exploratory Factor Analysis (EFA). Study 2 tests the convergent and discriminant validity of the new scale relative to well-established measures: the Connor-Davidson Resilience Scale (Connor& Davidson, 2003), and the Proactive Personality Scale (Batman & Crant, 1993). Furthermore, Study 2 tests criterion-related validity by assessing a potential outcome of tourist resilience: Destination Attachment.

Study 1

In the initial phase of scale development, the literature on trait and developmental resilience, disaster coping, preparedness and adaptiveness and resilience-promoting factors was examined to understand and define tourist resilience. The control, coherence and connectedness framework (the 3 Cs) proposed by Reich (2006), along with notions of preparedness and adaptiveness to crises and uncertainty, guided the structure and scope of the tourist resilience scale. Utilising these concepts in the scale development was crucial to ensure content validity as part of the item

generation process (Hinkin, 2016). As part of the research-informed item generation process, 77 items were created (see Appendix A).

Item reduction

In the second stage of the scale development process, six subject matter experts (SMEs) were consulted to improve the content validity of the newly developed measure of tourist resilience (Sireci & Parker, 2006). SMEs consisted of two lecturers from the Psychology Department at the University of Canterbury, two Applied Psychology Master's students and two individuals representing the target group (i.e. individuals who had often participated in tourism activities). For this pilot assessment, the 77 items were compiled into a Qualtrics Survey and the SMEs were asked to evaluate how much an item fitted into the dimensions of control, coherence and connectedness, which were defined for the participants. SMEs were given the option to add comments regarding the quality of an item, e.g. item being unclear or wordy. An item was removed or altered when it was repeatedly marked with negative comments. For example, SMEs commonly stated that for the item 'I typically travel in a group for the shared experiences' it was unclear what constituted a group, and whether family and friends were considered a group. Furthermore, items were removed or amended when SMEs suggested that they were repetitive, not specific enough, or a poor fit within the 3 Cs framework as well as the constructs of tourist preparedness and adaptiveness. In the end, of the original 77 items, 55 items were deemed suitable by the SMEs and utilised in Study 1. The item reduction process from research-informed item pool, to pilot study, to Study 1, and finally Study 2 scale can be viewed in Appendix A.

DeVellis (2017) stress that during a scale development process all studies should begin with an initial item pool that is at least three to four times the size of the

desired item numbers of the final scale to ensure internal consistency of the instrument. Starting with nearly 80 items was important in this research context in order to ensure that the domain and dimensions of tourist resilience, a construct that so far has been largely unexplored in the literature, were captured. Considerable loss of items in the scale development process should always be customary (Morgado et al., 2017).

Procedure and participants

The items of the Tourist Resilience Scale were compiled into an online survey utilising the Qualtrics Software. A link to the survey was then made available on social media platforms (e.g. Facebook and LinkedIn), in travel and tourism groups (such as 'Global Travellers', 'Travel Lovers' and 'Travelling the World'). Before clicking the link to the survey, an introduction was presented to respondents. Here the rationale for the study, the anonymity of the data and the prize draw participants could enter after survey completion were highlighted (see Appendix B). Participants were told that the survey would assess tourism behaviour and travel preferences. The concept of tourist resilience was not mentioned in the introduction of the survey to guarantee that respondents focused on the items and not on the concept that those items represented in order to minimise socially desirable responding.

The survey was completed by 260 participants of which 11% identified as male and 87% as female. The majority of respondents were in the 20 to 30 year age group (43%), followed by 31 to 40 year olds (30 %) and 41 to 50 year olds (13%). 51 to 60 year olds (10 %), and 61 year olds and up (4 %). The mean age of participants was 36 years (SD= 11.4). The data showed that participants identified mostly as New Zealander, which included dual citizenship with other countries (73%). See Appendix C for other demographic information that was collected.

Measures

Participants were asked to rate the degree to which they agreed or disagreed with the items utilising a 6-point Likert Scale, ranging from *'Strongly agree'* to '*Strongly disagree'*. Higher scores represented higher levels of tourist resilience. In Study 1 a six- factor structure consisting of 28 items was computed: 5 items in 'preparedness/control', e.g. I manage my travel budget as carefully as possible to fit my travel plans; 4 items in 'adaptiveness/control', e.g. 'I easily adapt to unexpected changes during my travels'; 5 items in 'preparedness/coherence', e.g. 'I stick to my original travel itinerary as closely as possible'; 8 items in 'adaptiveness /coherence', e.g. 'If a tourism service provider makes a mistake with my booking, I easily adjust my travel plans'; 2 items in 'preparedness/connectedness', e.g. 'I tend to choose destinations where I already know people' and 4 items in 'adaptiveness/connectedness', e.g. 'I usually offer to help locals facing problems even if that means I might need to delay/adapt my travel plans' (Table 2).

Results

To examine the dimensional structure of the data gathered for Study 1 Exploratory Factor Analysis (EFA) was undertaken utilising Jamovi software. Principal axis factoring extraction was conducted applying oblimin rotation assuming that the various dimensions would correlate highly. A 6-factor solution, consistent with the theoretical dimensions proposed, was extracted. The final scale consisted of 28 items with eigenvalues > 1. Corresponding factor loadings, ranging from .41 to .89 are presented in Table 2.

As part of the EFA, items that loaded below .4 onto a factor were removed. For example, the item 'When I visit places that have well-known risks associated (e.g. political instability, dangerous wildlife) I prepare in advance for these risks' was

removed from the first dimension (preparedness/control) as it did not meet the desired cut-off. Five items were retained for the preparedness/control dimension. Furthermore, an α of .74 was obtained for the preparedness/control dimension (Table 3). Alpha values would not have increased considerably by dropping any of the items within that dimension, indicating that the set of items within preparedness/control presented with good internal consistency.

The item 'I am able to quickly reprioritise how to spend my money in case of unexpected expenses on my travels' was removed from the dimension adaptiveness/coherence due to not meeting the .4 factor loading cut-off, indicating an inadequate fit to the factor. A possible reason could be that rather than accessing the general idea of 'going with the flow' it may have focused too precisely on financial matters. In the end, the adaptiveness/coherence dimension consisted of 8 items, and its internal consistency was .83 (Table 3). That value may be considered as a very good internal consistency score and removing any more items would not have increased it considerably. Internal consistency scores (α) for other sub-dimensions of the TouRes Scale are presented in Table 3.

Table 2

Principal Axis Factor Values of the Oblique (Direct Oblimin) Factor Loadings for the 28-Item TouRes Scale

	Items	*Factors*					
		1	*2*	*3*	*4*	*5*	*6*
	Preparedness-Control						
1.	When planning my trips, I always consider a Plan B in case something unexpected happens	.71					
2.	I am always prepared in case I get injured on my travels (e.g. carry plasters, painkillers, small medical kit)	.66					
3.	I manage my travel budget as carefully as possible to fit my travel plans	.54					
4.	On my trips, I always prepare for potential risks and danger in my environment (e.g. locate emergency exits, plan an escape route)	.75					
5.	On my travels, I always have extra financial resources set up in case unexpected situations arise	.53					
	Adaptiveness- Control						
6.	I easily adapt to unexpected changes during my travels		.71				
7.	I easily recover mentally from experiencing unforeseen changes on my travels		.76				
8.	I use unforeseen changes during my travels as an opportunity to grow		.73				
9.	I usually find an effective solution to unexpected problems I face on my travels		.56				
	Preparedness-Coherence						
10	I typically plan my trips well in advance			.63			
11.	I always plan exactly what tourist activities I will participate in at the destination			.75			
12.	I make a plan and have a clear, fixed itinerary when I travel			.89			
13.	I stick to my original travel itinerary as closely as possible			.89			
14.	Even if an opportunity comes up to explore a new destination/experience, I stick to my original travel plans			.72			

	Adaptiveness-Coherence			
15.	I will change my travel plan to spend more time at destinations or tourist activities that I find more fulfilling	.41		
16.	If a tourism service provider makes a mistake with my booking, I easily adjust my travel plans	.74		
17.	If things go wrong during my travels, I quickly come up with a solution without getting flustered	.64		
18.	When things go wrong on my travels, I use it as an opportunity to plan an even better alternative	.62		
19.	I am happy to find suitable alternatives (e.g. other places, experiences) when my travel plans are disrupted	.72		
20.	I tend to be flexible with my tourist itinerary (i.e., change travel plans when I feel like)	.68		
21.	When I travel, I tend to go with the flow (e.g. make minimal plans, make last minute changes)	.60		
22.	At a destination, I usually try new activities and experiences that were not part of my original travel plans	.64		
	Preparedness-Connectedness			
23.	I tend to choose destinations where I already know people (e.g., family, friends, relatives, colleagues)		.88	
24.	I only travel to places where I get a sense of familiarity (e.g. speak the language, find familiar foods and culture)		.88	
	Adaptiveness-Connectedness			
25.	If I am faced with an unexpected problem during my travels (e.g., get lost, have property stolen, feel unsafe) I find it easy to ask strangers for help			.47
26.	When service providers make a mistake (e.g., overbooking) I negotiate a solution collaboratively			.45
27.	I usually offer to help locals facing problems even if that means I might need to delay/adapt my travel plans			.84
28.	I usually offer to help other tourists facing problems even if that means I might need to delay/adapt my travel plans			.80

The three preparedness sub-dimensions correlated significantly positively with each other and the three adaptiveness sub-dimensions also correlated significantly in a positive way (Table 3). However, contrary to what was expected, the 'adaptiveness' and 'preparedness' dimensions correlated negatively with each other. 'Preparedness/coherence' and 'preparedness/connectedness' correlated significantly in a negative direction with all adaptiveness sub-dimensions, whereas 'preparedness/control' correlated only significantly with adaptiveness/coherence, also negatively (Table 3).

In summary, originally 77 items were developed for Study 1 of which 55 items were utilised in the TouRes Scale after undergoing pilot assessment by six SME's. Once data was collected EFA was undertaken and a 28-item scale consisting of six dimensions was computed. These dimensions were: Preparedness/control, preparedness/coherence, preparedness/connectedness, adaptiveness/control, adaptiveness /coherence and adaptiveness/connectedness. Preparedness and adaptiveness dimensions did not correlate as expected. Potential reasons for these findings will be further explored in the discussion.

Table 3

Correlation Matrix of the TouRes 6-Factor Solution, including reliability coefficients

		Age	Gender	Prep/Cont	Prep/Coh	Prep/Connect	Adapt/Cont	Adapt/Coh	Adapt/Conn
Age	Pearson's r	—							
Gender	Pearson's r	-.21 ***	—						
Prep/Cont	Pearson's r	.10	.09	[.74]					
Prep /Coh	Pearson's r	.04	.03	.41 ***	[.83]				
Prep/Conn	Pearson's r	.09	.02	.31 ***	.36 ***	[.67]			
Adapt/Cont	Pearson's r	.02	.09	-.07	-.38 ***	-.33 ***	[.78]		
Adapt/Coh	Pearson's r	-.04	.06	-.14 *	-.56 ***	-.32 ***	.83 ***	[.83]	
Adapt/Conn	Pearson's r	.09	.01	-.04	-.16 **	-.13 *	.45 ***	.43 ***	[.73]

Note. Cronbach's alpha reliability scores are indicated diagonally in brackets. $p < .05$, ** $p < .01$, *** $p < .001$

Study 2

In Study 2 the convergent and discriminant validity of the TouRes scale against theoretically related constructs (i.e. individual resilience and proactive personality) was assessed. Study 2 also evaluated the relationship of the TouRes Scale with destination attachment, offering preliminary insights into a potential outcome of interest in applied settings.

Measures

36-items were utilised to measure tourist resilience in study 2 (Table 4). Higher scores indicated higher levels of preparedness and adaptiveness. Eight new items were added to the 28-item scale (marked with an asterisk) for Study 2, making it a 36-item scale. This was done to increase the range of questions in some dimensions an important concept in quantitative psychological research (Clark-Carter, 2018) as the EFA provided clearer insights into what pertains to tourist resilience within each identified dimension. For example, only two items were retained in Study 1 for the dimension preparedness/connectedness, both of these alluding to the idea of travelling to familiar places. Therefore another two items were added that also fit within the notion of becoming familiar with a destination before visiting it, e.g. ‘Before I travel to a new place I tap into my personal network to ask about things to watch out for at my destination’.

Table 4

36-item TouRes scale, including newly developed items for Study 2

	Items
	Preparedness-Control
1.	When planning my trips, I always consider a Plan B in case something unexpected happens
2.	I am always prepared in case I get injured on my travels (e.g. carry plasters, painkillers, small medical kit)
3.	I manage my travel budget as carefully as possible to fit my travel plans
4.	On my trips, I always prepare for potential risks and danger in my environment (e.g. locate emergency exits, plan an escape route)
5.	On my travels, I always have extra financial resources set up in case unexpected situations arise
6.	I make sure that I have the national emergency service numbers (e.g. 111) when I plan my travels*
	Adaptiveness- Control
7.	I easily adapt to unexpected changes during my travels
8.	I easily recover mentally from experiencing unforeseen changes on my travels
9.	I use unforeseen changes during my travels as an opportunity to grow
10.	I usually find an effective solution to unexpected problems I face on my travels
11.	I learn from past travel setbacks to improve my next travel experiences*
12.	When I have an unpleasant travel experience I usually bounce back quickly*
	Preparedness-Coherence
13.	I typically plan my trips well in advance
14.	I always plan exactly what tourist activities I will participate in at the destination
15	I make a plan and have a clear, fixed itinerary when I travel
16.	I stick to my original travel itinerary as closely as possible

17. Even if an opportunity comes up to explore a new destination/experience, I stick to my original travel plans

Adaptiveness-Coherence

18. I will change my travel plan to spend more time at destinations or tourist activities that I find more fulfilling
19. If a tourism service provider makes a mistake with my booking, I easily adjust my travel plans
20. If things go wrong during my travels, I quickly come up with a solution without getting flustered
21. When things go wrong on my travels, I use it as an opportunity to plan an even better alternative
22. I am happy to find suitable alternatives (e.g. other places, experiences) when my travel plans are disrupted
23. I tend to be flexible with my tourist itinerary (i.e., change travel plans when I feel like)
24. When I travel, I tend to go with the flow (e.g. make minimal plans, make last minute changes)
25. At a destination, I usually try new activities and experiences that were not part of my original travel plans

Preparedness-Connectedness

26. I tend to choose destinations where I already know people (e.g., family, friends, relatives, colleagues)
27. I only travel to places where I get a sense of familiarity (e.g. speak the language, find familiar foods and culture)
28. Before I travel to a new place I tap into my personal network to ask about things to watch out for at my destination*
29. Before I go to a new place I make an effort to learn basic language skills to interact with the locals*

Adaptiveness-Connectedness

30. If I am faced with an unexpected problem during my travels (e.g., get lost, have property stolen, feel unsafe) I find it easy to ask strangers for help
31. When service providers make a mistake (e.g., overbooking) I negotiate a solution collaboratively
32. I usually offer to help locals facing problems even if that means I might need to delay/adapt my travel plans
33. I usually offer to help other tourists facing problems even if that means I might need to delay/adapt my travel plans
34. If I am faced with an unexpected setback (e.g. cancellation) I ask locals for suggestions on alternative activities/experiences*
35. I will go out of my way to help my travel companion(s) if they face a travel setback*
36. If I am faced with a travel setback I rely on my personal network (online or local) to explore suitable solutions*

* Items marked with an asterisk were newly added for Study 2

Procedure and participants

The 36-item scale portrayed in Table 4 was compiled into an online Qualtrics survey along with demographic questions (i.e., name, gender, nationality, purpose of travel, travel partners, frequency of travel and new or return visitors) and the other established measures of resilience-related constructs for validation purposes. At the end of the survey participants were provided with a text box to add any further comments they had and then finally a thank you message for participating appeared.

For study 2 the lead researcher relied on personal connections to complete the survey and send it to five other friends and acquaintances in their network, utilising the snowball data collection technique. Study 1 relied heavily on collecting a dataset from social media platforms whereas Study 2 heavily relied on the lead researchers personal connections. It was important to gather two samples from different populations for Study 1 and Study 2 (e.g. in Study 2 also reaching out to individuals without social media apps) and as argued by Hinkin (1995) using multiple samples often improves the content validity, factor structure and reliability of a measure. Consequently it ensured a greater diversity in age and nationality and overall generalisability of the scale. An email was sent to respondents with an introduction to the study and a survey link attached. Similarly to Study 1 the rationale for the study, data anonymity and the prize draw that could be entered after survey completion were stressed before clicking the link (see Appendix D). Participants were told that the survey would assess tourism behaviour as well as other related constructs. The term of tourist resilience, resilience and other concepts assessed in this study were not commented on to minimise issues of social desirable responding.

A total of 284 respondents completed this survey, with 26% identifying as male, 73 % identifying as female and one percent identifying as other gender. In

terms of age the majority of participants (40%) were in the 18 to 30 year age group, 31% were 31 to 40 years old and 13% were 41 to 50 year olds. Finally 9% of respondents were in the 51 to 60 year age group and 5% were 61 years of age and above. The mean age of participants computed as 34.9 years (SD=12.0). Respondents in this sample identified mainly as European (45%) (the majority of those being German (25.6%), New Zealander (33%), American (8%), Australian (5%) and 'Other' (12%), e.g. Saudi Arabian, Canadian, Indian, Chinese and Mexican. Each nationality compiled into the other categories each computed with less than 1% of the overall sample. Within the last two years 53% of participants stated to have travelled 'two to four times', 17% as 'one time', 16% as 'five to six times' and 14% 'as seven times or more'.

For questions about 'purpose of travel' and 'travel partners' respondents had the option to click all options that applied. After data collection those variables were coded in order to analyse the frequency of responses. For analytical purposes four categories for those variables were considered to test for mean differences in tourist resilience scores when assessed in relation to travel purpose and travel partners. The majority of participants stated their main purpose for travelling was 'holiday' (34%), 'holiday plus visiting friends/family' (31%), as well as 'business and/or conference/convention' (26%). In terms of 'travel partners' most respondents stated to travel with their 'partner/family' (51%), 'alone' (16%), 'partner/family plus friends' (18%) and 'alone plus friends' (16%). In sample 2, 29% of respondents stated to have been mainly 'return visitors' and 36% indicated to have been mainly 'new visitors' to their destinations. 35% stated to have been equally 'return and new in their last two years of travelling.

The response format was changed from a 6-Point Likert scale (Study 1) to a 5

Point-Likert scale, which meant that respondents now had an option to click a neutral 'neither agree nor disagree' response option. This change was introduced to make comparisons (e.g. establish discriminant validity) to recognized scales easier. As an introduction to the scale respondents were asked to reflect on their last two years of travelling and respond accordingly. This restriction was introduced to reduce memory recall error. Furthermore Dippo (1989) states that events that are especially salient to an individual are generally remembered better and it is believed that due to the importance and uniqueness that people often place on their international travel experiences these events were more likely to be reflected upon in an accurate manner.

For validation purposes other resilience-related constructs were included in Study 2 and these were evaluated through confirmatory factor analysis (CFA). Due to the outcomes of Study 1 indicating a negative relationship between the adaptiveness and preparedness dimensions it was expected that higher scores in these dimensions also lead to different types of correlations with the measures of resilience and proactive personality. To assess the construct of *Resilience* permission for use was purchased from the developers of the 10-item Connor Davidson Resilience Scale (CDRS-10). This scale was rated on a 5-point scale from 'Not true at all' to 'True nearly all the time' with higher scores showing higher levels of resilience. This scale mainly operates as a measure of hardiness with items reflecting upon flexibility, the ability to regulate emotions, a sense of self-efficacy, optimism and cognitive focus and maintenance of attention under stress (Davidson, 2020). Example of items used in this scale are 'I believe I can achieve my goals, even if there are obstacles' and 'I am able to adapt when changes occur'. The CDRS-10 is an established, recognised and widely used measure of individual resilience consistently measuring with good internal consistency (α) above .81 (Davidson, 2020) and in Study 2 it was computed

at .87.

Another measure that was included into Study 2 was the 6-item Proactive Personality Scale (PPS) (Claes, Beheydt& Lemmens, 2005) an abbreviated form of the original 17-item PPS by Bateman and Crant (1993). The 6-item scale l computed with an adequate internal consistency in a number of samples, with α ranging from .74 to .77 (Claes, Beheydt& Lemmens, 2005) and in Study 2 an α of .78 was obtained. The scale usually is assessed in a 7-point Likert rating scale format, anchored at 1= 'strongly disagree' to 7= 'strongly agree' with higher values indicating higher levels of being proactive. For this study the scale was modified to using five anchors to make it consistent with the other scales used in the study. This scale is a one dimensional measure assessing the broad construct of 'proactive personality' (Claes, Beheydt& Lemmens, 2005) which is assumed to be correlated to tourist resilience.

Finally the Destination Attachment Scale (DA) developed by Prayag and Ryan (2012) was included in Study 2 to assess the relationship of destination attachment and tourist resilience. This study uses the DA Scale for its established reliability and validity (Wang, Liu, Huan & Chen, 2019) and in this study the scale computed with a good internal consistency of .89. Example items of the scale include 'This place is a very special destination to me' and 'I identify strongly with this destination'. Prayag and Ryan (2012) anchored the DA Scale on a 7-point Likert scale and this study adapted this rating type, from 'strongly disagree' to 'strongly agree'. However for consistency with other measures in Study 2 this scale was transformed into five-point Likert scale. Tourist resilience may positively contribute to destination attachment, which according to Prayag and Ryan (2012) is an antecedent of tourist loyalty. This part of the study is a preliminary assessment of how tourist resilience may be beneficial in applied settings. The relationship between both constructs was assessed

using linear regression when some other factors (i.e age, gender, new/return visitor) were controlled for.

Results

A CFA was computed using Jamovi software to examine whether the six-factor model established in Study 1 could be reliably replicated with the new sample in Study 2. The goodness-of-fit indices indicated that the six-factor structure was an adequate fit of to the data (CFI=.95, RMSEA=.05). Appendix A shows the final 18 items as highlighted in bold with their corresponding item labels. Only items that loaded above .50 were included in the final analysis of data, ranging from .53 to .91 (Table 5). The Average Variance Extracted (AVE) for each sub-dimension was assessed to evaluate convergent validity. The AVE is a measure of the amount of variance that the construct measures relative to the amount of variance that is caused by measurement error (Fornell & Larcker, 1981). This study follows Cheung and Wang's (2017) recommendation of concluding convergent validity if AVE's are not significantly smaller than .5. AVEs for each of the six factors are presented in Table 5.

Table 5

Factor loadings of selected items included in final TouRes Scale and Average Variance Explained by each of the six factors*

Factor	Items	Estimate	SE	95% Confidence Interval		Z	p	Stand. Estimate	AVE
				Lower	Upper				
Adaptiveness/Control	TouRes1_1	0.75	0.06	0.64	0.86	13.10	< .001	.76	
	TouRes1_2	0.63	0.05	0.54	0.73	12.69	< .001	.73	
	TouRes1_3	0.72	0.06	0.60	0.84	11.95	< .001	.70	.52
Adaptiveness/Coherence	TouRes1_5	0.65	0.07	0.52	0.78	9.82	< .001	.58	
	TouRes2_4	0.96	0.06	0.84	1.07	16.03	< .001	.84	
	TouRes2_5	1.01	0.07	0.88	1.14	15.56	< .001	.82	.56
Adaptiveness/Connectedness	TouRes3_3	0.95	0.06	0.84	1.06	17.05	< .001	.91	
	TouRes3_4	0.82	0.05	0.71	0.93	14.91	< .001	.81	
	TouRes3_5	0.57	0.06	0.45	0.69	9.29	< .001	.54	.57
Preparedness/Control	TouRes3_8	0.70	0.08	0.55	0.84	9.19	< .001	.59	
	TouRes3_9	1.00	0.08	0.83	1.17	11.80	< .001	.73	
	TouRes4_3	0.91	0.08	0.76	1.06	12.10	< .001	.75	.47
Preparedness/Coherence	TouRes4_6	0.85	0.06	0.73	0.97	13.78	< .001	.73	

	TouRes5_1	1.00	0.05	0.90	1.10	19.67	< .001	.93	
	TouRes5_2	0.91	0.05	0.80	1.01	16.94	< .001	.84	.69
Preparedness/Connectedness	TouRes5_4	0.69	0.07	0.55	0.83	9.66	< .001	.62	
	TouRes5_5	0.76	0.07	0.63	0.89	11.62	< .001	.79	
	TouRes5_6	0.63	0.08	0.47	0.79	7.69	< .001	.53	.41

*Corresponding item labels can be viewed in Appendix A

Convergent and Discriminant Validity. The six sub-dimensions of the TouRes Scale were assessed in relation to established measures of 'resilience', 'proactive personality' (PPS) and 'destination attachment' (DA) (see Table 6).

On the one hand the Adaptiveness sub-dimensions showed significant positive correlations with each of these three constructs. However while the correlations were significant the magnitude of the correlations was not excessively high (maximum r=.47 computed for adapt/control with resilience as shown in Table 6) indicating that Adaptiveness sub-dimensions were related to resilience, proactive personality and destination attachment but not overlapping. It provides evidence that in comparison to resilience, proactive personality and destination attachment adaptiveness dimensions of the TouRes scale measured a different construct. Age was significantly positively correlated with 'adaptiveness/control', as well as positively correlated with 'resilience' (Table 6). In other words, regaining personal control when being exposed to adversity while travelling was more common in older respondents. Furthermore older participants overall showcased higher levels of resilience.

On the other hand, of the preparedness sub-scales only 'preparedness/control' produced consistently significant associations with the three established constructs (Table 6). All correlations of 'preparedness/control' with resilience and proactive personality were significantly positive. The highest correlation was computed between 'preparedness/control' and PPS (r=. 2), indicating that these constructs were different from one another (Table 6). The dimension 'preparedness/coherence' and 'preparedness/connectedness' produced one significant negative correlation with resilience. Potential reasons for these findings will be presented in the discussion section. Furthermore 'preparedness/connectedness' produced one positive significant

correlation with DA. An explanation for this finding might be that those participants who planned their visits to familiar places (e.g. due to having family there) relative to places where they had fewer connections also were more attached to these destinations. This finding is understandable, as it is more likely that these places have meaning to participants, e.g. parental home, childhood memories, extensive familiarity with the place etc.

Additionally two CFAs were conducted including the six factors of the TouRes Scale with the added the factor of resilience and PPS. Both the addition of the resilience factor (CFI=.90, RMSEA=.06) as well as the addition of the PPS factor (CFI=.94, RMSEA=.05) to the TouRes structure produced adequate goodness-of-fit indices. Factor loadings can be viewed in Appendix E. These outcomes suggest that resilience and proactive personality loaded onto different factors than TouRes dimensions and evidence of discriminant validity of the constructs therefore was produced.

Table 6

Correlation matrix of the six TouRes sub-dimensions with Resilience, Proactive Personality, Destination Attachment (DA) and Age

		Adapt/Cont	Adapt/Coh	Adapt/Conn	Prep/Con	Prep/Coh	Prep/Conn	PPS	Resilience	DA	Age	Gender
Adapt/Cont	Pearson's r	—										
Adapt/Coh	Pearson's r	.40 ***	—									
Adapt/Conn	Pearson's r	.27 ***	.41 ***	—								
Prep/Con	Pearson's r	-.13 *	.06	.14 *	—							
Prep/Coh	Pearson's r	-.33 ***	-.56 ***	-.23 ***	.27 ***	—						
Prep/Conn	Pearson's r	-.30 ***	-.09	.01	.28 ***	.29 ***	—					
PPS	Pearson's r	.15 *	.17 **	.18 **	.20 **	.02	.07	—				
Resilience	Pearson's r	.47 ***	.26 ***	.27 ***	.14 *	-.13 *	-.14 *	.45 ***	—			
DA	Pearson's r	.06	.19 **	.21 ***	.16 *	.03	.17 **	.15 *	.11	—		
Age	Pearson's r	.14 *	.04	.09	.05	-.03	-.10	-.04	.23 ***	.03	—	
Gender	Pearson’s r	-.07	-.03	-.01	-.02	-.02	-.16 *	-.11	-.17 **	-.01	-.16 **	—

Note. * p < .05, ** p < .01, *** p < .001

Mean Differences. After conducting the CFA, the six subscales of the TouRes measure were assessed in relation to the collected bio-demographic data. After conducting an independent samples t-test no significant difference between gender groups in the TouRes dimensions was computed, with the exception of the 'Preparation/Connectedness' dimension, $t(254)=2.5$, $p < 0.01$. It indicated that men (M= 2.67, SD= 0.87) relative to women (M=2.37, SD=0.81) were more likely in their travel planning to choose destinations that provided them with a sense of familiarity. Also the preparedness/connectedness dimension was significantly negatively correlated to gender, meaning that there was a higher association of males visiting places that offered them a sense of familiarity (Table 6). This is a surprising outcome and it is suggested to conduct further research to see whether this finding can be replicated.

A one-way ANOVA was computed to see whether a participant's nationality, their purpose of travel, or their choices of 'travel partners' had significant effects on their tourist resilience. It was found that significant group differences for 'Nationality' on the 'preparedness/coherence' dimension [$F(4,49)=3.43$, $p=.02$)] existed. Post Hoc comparisons using the Games-Howel test indicated that Americans (M=3.5, SD=0.82) relative to Europeans (M=2.7,SD=0.98) were significantly more likely to prepare for potential stressors in their environment, e.g. by planning all aspects of the trips in detail.

Furthermore a significant group difference was computed for 'purpose of travel' in the 'preparedness/connectedness' dimension [$F(3,81)=3.88$,$p=.01$)]. Participants who planned to visit destinations that offered them with a sense of familiarity/connection were more likely to visit friends and relatives (M=3.11,SD=0.93) than to go on a different type of holiday (M=2.35,SD=0.83).

In terms of 'travel partners' statistically significant effects were found in the 'adaptiveness/coherence' [F(3,84)=5.63,p=.001)], 'adaptiveness/connectedness' [F(3,86)=3.65,p=.02)] and in the 'preparedness/coherence' dimension [F(3,88)=5.02,p=.003)]. Those travelling alone (M=4.05, SD=0.79) relative to those travelling with their partner, family or friends (M=3.46, SD=0.87) were more likely to quickly adapt to unexpected changes they faced on their travels. Also those travelling alone (M=2.50, SD=0.90) were less likely to prepare for potential stressors in their tourist environment relative to those travelling with significant others (M=3.05, SD=0.74). Also they were more likely to connect with other people on their travels (M=3.49, SD=0.38) in comparison to those travelling with their partner or family (M=3.00, SD=0.83).

Whether someone was a 'return' or 'new visitor' computed with one significant effect in the 'preparedness/connectedness' dimension [F(2,168)=4.80,p=.0'1)]. 'Mainly return visitors' (M=2.70,SD=0.88) relative to 'mainly new visitors' (M=2.30,SD=0.77) were more likely to choose places that offered them with a sense of familiarity/connection.

Destination Attachment. Finally a linear regression was computed to predict 'destination attachment' (DA) based on 'tourist resilience'. Due to the limited sample size of this study, this regression analysis focused only on a few key predictors. In a first step, two demographic variables (age and gender) were added into a linear regression with DA (Model 1), represented in Table 7. As shown no significant equation computed (Table 7). As a second step these demographic variables plus new/return visitors were added into the regression equation (Model 2) and again no significant finding computed. In a third and final step the 6 sub-dimensions of the TouRes Scale were added into the Model (Model 3). With the addition of the TouRes

dimensions from Model 2 to Model 3 and accounting for other variables included in this model a significant regression line appeared. This means, someone who is more prepared in their travel planning and more adaptive in their tourism experience is significantly more likely to be attached to the destination visited (Table 7), regardless of their age, gender or whether they were a new or return visitor to their destination.

Table 7

Model Fit Measures for 3 Regression Models onto Destination Attachment as an outcome

Model	R	R^2	Overall Model Test			
			F	df1	df2	p
1 Age, Gender	0.03	0.001	0.14	2	239	0.87
2 Age, Gender, New_Return Visitor	0.18	0.031	1.90	4	237	0.11
3 Age, Gender, New_Return Visitor Adapt/Cont, Adapt/Coh, Adapt/Conn, Prep/Cont, Prep/Coh, Prep/Conn	0.39	0.155	4.24	10	231	< .00**

Note. ** p< .01

Table 8 indicates that adaptiveness/coherence, adaptiveness/connectedness and preparedness/coherence produced significant positive relationships with DA. In other words, these dimensions revealed to be significant predictors of destination attachment in this study.

Table 8

Model Coefficients for Multiple Regression for full regression model (Model 3)

Predictor	B	SE	95% Confidence Interval		t	p
			Lower	Upper		
Intercept [a]	1.48	0.47	0.55	2.41	3.14	0.00
Age	0.00	0.00	-0.01	0.01	-0.34	0.73
Gender:						
Female – Male	0.05	0.11	-0.17	0.28	0.47	0.64
New Return Visitor:						
New Visitor –Return Visitor	-0.27	0.13	-0.53	-0.02	-2.13	0.03
Equal Return/New Visitor– Return Visitor	0.00	0.12	-0.24	0.25	0.04	0.97
Adaptiveness/Control	0.03	0.07	-0.11	0.16	0.38	0.70
Adaptiveness /Coherence	0.20**	0.07	0.06	0.34	2.89	0.00
Adaptiveness/Connectedness	0.14*	0.06	0.02	0.27	2.22	0.03
Preparedness/Control	0.07	0.05	-0.04	0.18	1.29	0.20
Preparedness/Coherence	0.13*	0.07	0.00	0.26	1.93	0.05
Preparedness/Connectedness	0.09	0.07	-0.05	0.22	1.29	0.20

Note. [a] Represents reference level; * p< .05, ** p< .01

Discussion

The goal of this study was to construct a reliable and valid measure of tourist resilience. In Study 1, it was proposed that tourist resilience could be measured as a six-dimensional scale based on the 3'Cs (control, coherence, and connectedness) (Reich, 2006), as well as adaptiveness and preparedness concepts. Study 2 assessed whether this factor structure could be replicated in a different sample, and tested convergent and discriminant validity by assessing the relationship of the six TouRes sub-dimensions with the established constructs of resilience and proactive personality. Furthermore, destination attachment was assessed in Study 2 as one of the possible desirable outcomes of tourist resilience.

Summary of Main Findings

In Study 1, the 28-item scale showed a factor solution that was consistent with the six theoretical dimensions that underpinned this study. The six dimensions were: preparedness/control, preparedness/coherence, preparedness/connectedness, adaptiveness/control, adaptiveness/coherence, and adaptiveness/connectedness. Contrary to what was expected, mostly negative correlations between 'adaptiveness' and 'preparedness' dimensions were obtained, e.g. the sub-scales of preparedness/coherence and preparedness/connectedness correlated negatively with all adaptiveness sub-dimensions. In Study 2, an additional eight items were included to ensure the domain of these dimensions was suitably represented. Following the analyses, 18 items were retained that loaded onto the six dimensions of interest. Moreover, in Study 2 convergent and discriminant validity of the TouRes scale relative to resilience and proactive personality measures were also established.

With the outcomes of both studies, it can be argued that this newly developed scale has successfully shown the same factor structure in two different

samples. Furthermore, an acceptable to good internal consistency of the six dimensions was obtained. It can be argued that this new TouRes Scale is a reliable measure consisting of six dimensions.

There are a number of possible reasons why negative correlations between preparedness and adaptiveness dimensions were obtained, contrary to what was proposed in the literature (e.g. Paton& Johnston, 2017; Hajibaba et al., 2015). Reflecting upon the items of both studies, it becomes apparent that adaptiveness items closely reflect behaviours associated with the ability to adapt and bounce back from adversity, a concept that has been well described in the individual resilience literature (e.g. Windle, 2011; Connor& Davidson, 2003; Luthar, Cicchetti & Becker, 2000). For example, 'I will change my travel plan to spend more time at destinations or tourist activities that I find more fulfilling' (adaptiveness/coherence) reflects the notion of being flexible depending on the availability of opportunities (e.g. Dooley, Slavich, Moreno& Bower, 2017), or 'I usually find an effective solution to unexpected problems I face on my travels' (adaptiveness/control) closely reflects the concept of effective problem solving skills (e.g. Bryan, O'Shea& MacIntyre, 2019). Items in all adaptiveness dimensions seem to have reflected notions of individual resilience closely, just applied to a travelling context. In both studies, adaptiveness dimensions were associated with resilience and other outcomes in the expected direction. The individual resilience definition utilised as a guideline for this study described the importance of being able to adapt to change and bounce back from adversity (Windle, 2011) and from the outcomes of this study it can be argued that being adaptive is inherently important in tourist resilience as well.

Conversely, the items in the preparedness dimensions may not have

addressed a type of preparedness that allows individuals to cope better and more effectively with stressors when they emerge, instead reflecting an avoidant approach to uncertainty and change. Paton& Johnston (2017) discussed preparedness in terms of readiness strategies that increase a person's ability to respond to crisis in a planned and functional way. However, items in the preparedness/coherence and in the preparedness/connectedness dimensions failed to address readiness for adversity. Rather, these items may have indicated a dislike or resistance to change. Examples are 'I stick to my original travel plans as closely as possible' (preparedness/coherence) or 'I tend to choose destinations where I already know people' (preparedness/connectedness). Oreg (2003) explains that resistance to change is generally viewed as an obstacle to effectively adapting to uncertain and ambiguous contexts. He describes resistance to change as a person's unwillingness to cope with changes, the tendency to avoid making changes or devaluing them, and finding change aversive in various contexts (Oreg, 2003). It may be that some preparedness items tapped into dispositional resistance to change, which partly explains the negative correlations found between preparedness and adaptiveness sub-scales in Study 1 as well as Study 2.

Unlike the coherence and connectedness dimensions of preparedness, the preparedness/control dimension presented with positive significant correlations with proactive personality and resilience. The three items in 'preparedness/control' reflect the idea of preparing for 'What if' scenarios that would facilitate a quicker adjustment to experiencing adverse situations. While items in other preparedness dimensions may be more reflective of resistance to change, the items in the preparedness/control dimension signal readiness in the tourist resilience context. For example, the item 'When planning my trips, I always consider a Plan B in case

something unexpected happens' indicates the capacity to regain control by having an alternative when adversity hits, which has been described as an important concept in disaster resilience (Reich, 2006). This item reflects the ability to plan for alternatives acknowledging the possibility of change as a possible outcome of travel, rather than a nuisance. The item 'I make sure that I have the national emergency service numbers (e.g. 111) when I plan my travels' again clearly shows the foresight of planning for adversity, rather than trying to avoid change.

Overall, the dimension of preparedness/control, alongside the three adaptiveness dimensions, play an important role in the concept of tourist resilience. This study provided evidence that tourist resilience as described by Fountain and Cradock-Henry (2020) building on the insights of human resilience in post disaster settings proposed by Reich (2006) can be understood along control, coherence and connectedness factors, taking into account elements of preparedness and adaptiveness.

Further, the analyses revealed that the TouRes Scale is related to yet distinct from established constructs of resilience and proactive personality, highlighting the extension of the resilience construct to the unique tourism sector context as an important contribution to the literature. One respondent addressed this discrepancy between everyday resilience and resilience in a travelling context: "I find I handle setbacks a lot more when I'm travelling as I don't have a choice. Being sad and not taking action isn't an option so you have to solve problems. I enjoy this about travelling... yet at home I'm probably less resilient".

Limitations and directions for future research

Despite the valuable insights, this research has produced for future tourist resilience research endeavours, it is important to discuss some limitations. Firstly,

the items selected to reflect coherence and connectedness preparedness dimensions failed to produce evidence for their positive role in tourist resilience. The outcomes of this study suggest that future research may test the 6-dimension 18-item scale against a shorter 12-item measure of tourist resilience consisting of four dimensions: adaptiveness/control, adaptiveness/coherence, adaptiveness/connectedness and preparedness/control.

Furthermore, this study set out to develop a measurement tool that can be applied to different populations, e.g. different ages, genders and cultures. However, the convenience sampling approach employed in this study arguably limited the representativeness of the samples to a diverse population, which limits the generalisability of the research (Lavrakas, 2008; Morgado et al., 2017; Nunnally, 1967). Relatedly, higher ratings in the preparedness/coherence items were obtained among participants in the North American sample, compared to participants in the European sample. In future research, this scale could be tested in non-western contexts to assess whether the same dimensional structures and other outcomes can be replicated. For example, connectedness and control may hold different meanings in different cultures, and influence research outcomes. In some western cultures, engaging others in conversation is often described as a way to control a situation, whereas individuals in eastern cultures regard quietness and observation as a way to control what is going on (Kim, 2002). What it means to connect with others and to be in control during one's travels may unravel differently in different cultures and influence dimensional structures of this scale.

Another important limitation of this study is the fact that data was gathered during the outbreak of Covid-19, which had major impacts on international travel. One respondent commented on that issue in her survey, explaining this potential

weakness of this research: “Due to Covid the last two years are not a good indicator of my normal patterns of travel…”. Ultimately, people’s responses on this survey may not have been representative of their usual travel behaviours due to the restrictions that the pandemic placed on them (e.g. not being able to travel to their usual holiday destination). Therefore, it is suggested to replicate this study once travel restrictions are eased and it is possible for people to engage in their usual travel and tourism experiences again. Overall, Covid-19 may have forever changed travel and post-pandemic travel may be very different. For example, Ali Rafar the founder and CEO of Skift (a global travel industry intelligence) suggests that there is an overall trend for people to travel more domestically, starting to appreciate their own local regions (Fogarty et.al, 2020). While the TouRes scale has been framed around international travel contexts, future research could adapt it to domestic travel contexts and assess its utility for those markets.

A further limitation of this study is the fact that it did not attend to some relevant contextual factors linked to specific travel experiences and modes of travel that may influence responses to a tourist resilience scale, a common limitation discussed in the literature (Morgado et al., 2017). For example in this study it was found that, when asked to recall recent travel experiences, return visitors were more likely to choose travel destinations that offered them with a sense of familiarity or connection, relative to new visitors. Furthermore, those who reported typically travelling alone in comparison to those travelling with others were more likely to make an effort to connect with others on their travels. In addition, those travelling with significant others (partner/family) were also more likely to prepare for potential adversity than those travelling alone. This shows how the context of travel may have influenced participants’ responses. Following the suggestions of Morgado

et al. (2017) future research should therefore place more emphasis on hypothesising and testing for control variables that may have an effect on responses to a tourist resilience measure, including return or new visitors, travelling alone versus travelling with others, travel purpose, and travel frequency.

Another limitation of this study was that a self-report structure for the questionnaire was utilised, which meant that responses may have been at risk of social desirability bias. Donaldson and Grant-Vallone (2002) state that in order to present a positive self-image, research participants tend to over-report behaviours viewed as desirable. For example participants may have rated certain items higher (e.g., adaptiveness, personal resilience), which could have inflated the relationships between constructs. Nevertheless, a specific effort was undertaken to minimise the risk of social desirable responding by not labelling the construct that was being assessed and it is therefore argued that this limitation was minimised as much as possible in this research.

Contributions to research and practice

To date this study is the first to propose and test a measure of tourist resilience. It contributed to the research by incorporating Reich's (2006) 3 Cs model (control, coherence and connectedness) with preparedness and adaptiveness principles, drawing on resilience research in post disaster settings. Fountain and Cradock-Henry (2020) presented a first working definition of tourist resilience based on these insights. This study revealed that the concept of adaptiveness, in combination with the 3 Cs, contributes to the understanding of tourist resilience. Hall, Prayag and Amore (2017) noted that the question remained unanswered of whether resilient individuals are also resilient tourists. This study provided a preliminary answer to that question, highlighting that tourist resilience and

individual resilience represent related yet distinct constructs.

Furthermore, this study was concerned with developing a behavioural measure of tourist resilience, an endeavour that has not been described in the literature before. As argued by Reid (2006), attitudes are latent constructs that cannot be measured directly and can only be inferred from observed behaviour. How someone feels about something and how they actually behave may be very different. Therefore assessing tourist resilience through measuring past behaviour provides robust information of greater utility in applied settings.

This study also reveals a fundamental difference between crisis-resistant travellers, as introduced by Hajibaba et al. (2015), and resilient travellers. Hajibaba et al. (2015) state that travellers with a higher resistance to change continue with their travel plans despite experiencing adversity due to the high emotional and cognitive costs that are associated with making changes. A resilient tourist may show similar characteristics to a crisis-resistant traveller, in terms of being more likely to follow through with their travel plans regardless of the circumstances. However, rather than resisting change at all costs, they are able to embrace it and adapt to it more rapidly.

This newly developed measure presents a first evaluated tool that tourism destinations and operators can utilise to measure tourist resilience. Tourism organisations could for example transform this scale into a traveller app to measure the resilience levels of their customer base and then utilise these insights to develop resilient travellers, or match travellers looking to connect with others at the destination. Earlier it was described how those presenting with higher scores on this TouRes scale were more likely to present with higher levels of destination attachment. As established by Prayag and Ryan (2012) those with higher levels of

place attachment were more likely to revisit their destinations as well as recommend those destinations to others. Ultimately, attracting a more resilient tourist base may have positive effects in terms of turning tourists into advocates for their destination, therefore leading to an influx in new tourists as well as attracting more repeat visitors. These preliminary insights make this scale a very relevant tool in applied settings.

This research found that adaptiveness/control, adaptiveness/coherence, adaptiveness/connectedness, and preparedness/control represent the dimensions of tourist resilience by being positively associated with resilience and other positive traits. Tourism operators may rely on insights from these dimensions to support preparedness and adaptiveness behaviours. For example, when a booking for a certain activity has to be cancelled (e.g. due to poor weather) operators should be prepared, where possible, to present suitable alternatives to tourists, enabling them to engage in adaptive behaviours. This may support a tourist in their ability to adapt more rapidly to the unexpected change and regain control, which in return may mitigate the negative effects of the changes. Another example is for tourism operators to have clear information available on stressors that may be present in the environment, such as likelihood of natural disasters, and make that information easily accessible to tourists in case they need it (e.g. material on what to do in an earthquake, clear and concise signage on exit, and escape routes and information on tsunami evacuation zones). This may support a tourist in their ability to remove uncertainty and adapt more rapidly to adverse events, supporting a resilient response.

Attracting a more resilient tourist base is essential to tourism providers. A more resilient tourist base may provide some protection against unpredictable

internal and external crises that are beyond tourism operators' control, such as the outbreak of a global pandemic, because this segment of the tourist market might not cancel trips. Rather, they would rebook, or if possible follow through with their travel plans. Tourism operators may rely on insights from this study to better understand and support resilience within their organisations.

Conclusion

This research was the first to develop and test a measure of tourist resilience utilising a conceptual framework that focused on the overarching dimensions of adaptiveness and preparedness as well as acknowledging the essential role of control, coherence and connectedness. An 18-item scale along six dimensions (TouRes) was developed and validated. Future research is needed to refine this measure, and to establish the role of preparedness in tourist resilience more clearly. The findings have indicated that tourist resilience is positively associated with a tourist's destination attachment, providing a first glimpse into the positive effects a resilient client base may have in applied tourism settings. The Covid-19 pandemic has reiterated the importance of tourist resilience and conducting future research on this construct is therefore crucial.

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Appendices

Appendix A

Progression of full item pool from pilot study to final scale

Table A1

Preparedness items (25 items)	*Study*			
	Pilot	1	2	Final Scale
I typically plan my trips well in advance	x	x	x	
I always plan exactly what tourist activities I will participate in at the destination (TouRes4_6)	**x**	**x**	**x**	**x**
When planning my trips, I always consider a Plan B in case something unexpected happens (TouRes3_8)	**x**	**x**	**x**	**x**
I make sure that I have the national emergency service numbers (e.g. 111) when I plan my travels (TouRes3_9)			**x**	**x**
I am always prepared in case I get injured on my travels (e.g. carry plasters, painkillers, small medical kit)	x	x	x	
On my trips, I always prepare for potential risks and danger in my environment (e.g. locate emergency exits, plan an escape route) (TouRes4_3)	**x**	**x**	**x**	**x**
I avoid visiting places that have well-known risks associated (e.g. political instability, dangerous wildlife)	x			
I gather information prior to my travel on the risks associated with traveling to a certain place	x			
I always have travel insurance for overseas travel	x			
I tend to choose destinations where I already know people (e.g., family, friends, relatives, colleagues) (TouRes5_4)	**x**	**x**	**x**	**x**
I only travel to places where I get a sense of familiarity (e.g. speak the language, find familiar foods and culture) (TouRes5_5)	**x**	**x**	**x**	**x**
Before I travel to a new place I tap into my personal network to ask about things to watch out for at my destination* (TouRes5_6)			**x**	**x**
I stick to my original travel itinerary as closely as possible (TouRes 5_2)	**x**	**x**	**x**	**x**

I make a plan and have a clear, fixed itinerary when I travel (TouRes5_1)	**x**	**x**	**x**	**x**
In the past, I have purposefully selected destinations known to involve a level of risk (e.g., political instability, dangerous wildlife) just for the experience of it				
When I visit places that have well-known risks associated (e.g. political instability, dangerous wildlife), I prepare in advance for these risks				
If travelling on my own, I always make sure to let other people know where I am	x			
Before I go to a new place I make an effort to learn basic language skills to interact with the locals			x	
I routinely travel to countries with cultural practices that can challenge my beliefs				
I only travel to destinations that are extremely different from my home country				
On my travels, I always have extra financial resources set up in case unexpected situations arise	x	x	x	
I avoid tourist activities that make me feel uncomfortable or unsafe	x			
I keep all receipts during my travels to track my spending for budgeting purposes				
I tend to choose destinations that offer what I think are novel experiences				
I typically plan to travel with other tourists (e.g. friends, family, tourist group) for safety reasons	x			

Note. Items in **bold** are part of the final 18-item TouRes Scale

Table A2

Adaptiveness items (52 items)	*Study* Pilot	1	2	Final Scale
I manage my budget as carefully as possible to fit my travel plans	x	x	x	
I am able to quickly reprioritize how to spend my money (e.g., in case of unexpected expenses) due to unforeseen events	x			
When I am faced with a travel setback, I find it challenging to deviate from the original plan	x			
Even if an opportunity comes up to explore a new destination/experience, I stick to my original travel plans	x	x	x	
I will change my travel plan to spend more time at destinations or tourist activities that I find more fulfilling (TouRes 1_5)	**x**	**x**	**x**	**x**
I tend to be flexible with my tourist itinerary (i.e., change travel plans when I feel like) (TouRes 2_4)	**x**	**x**	**x**	**x**
When I travel, I tend to go with the flow (e.g. make minimal plans, make last minute changes) (TouRes 2_5)	**x**	**x**	**x**	**x**
At a destination, I usually try new activities and experiences that were not part of my original travel plans	x	x	x	
Once I am at the destination, I make a point of connecting with different service providers (e.g., tourist information centres, tour operators)	x			
I typically plan to travel with other tourists (e.g. friends, family, tourist group) for safety reasons	x			
On my travels, I make an effort to connect with fellow tourists	x			
If I am faced with a problem during my travels (e.g., get lost, have property stolen, feel unsafe) I find it easy to ask strangers for help	x	x	x	
When I am faced with a travel setback, I seek support from others (e.g., talk to travel partners, friends and family back home)	x			
During my travels, if I see other tourists facing problems I usually offer to help	x			
I make an effort to learn local customs and traditions by interacting with locals	x			
When service providers make a mistake, such as double-booking, I let my frustration out at them (e.g., face-to-face, negative reviews on their website or on social media)				

I easily adapt to unexpected changes during my travel (TouRes 1_1)	**x**	**x**	**x**	**x**
I easily recover mentally from experiencing unforeseen changes on my travels (TouRes 1_2)	**x**	**x**	**x**	**x**
I use unforeseen changes during my travels as an opportunity to grow (TouRes 1_3)	**x**	**x**	**x**	**x**
I can easily change my travel plans if service providers have done mistakes with any of my bookings				
When I am faced with a travel setback (e.g. cancellation, bad weather) I quickly change my intended travel plans	x			
When I am faced with unexpected changes before I travel I cancel my trip				
I seek the help of others (e.g. travel companions, service providers, strangers) to solve problems that I face on my travels	x			
I usually find an effective solution to problems I face on my travels	x			
I always plan my trips in a way that minimises the risk of physical discomfort (e.g. weather-appropriate clothing)	x			
When service providers make a mistake (e.g., overbooking) I negotiate a solution collaboratively	x	x	x	
I typically behave in a calm manner when things go wrong on my travels				
When I am faced with a travel setback, I seek support from others (e.g., talk to travel partners, friends and family back home)	x			
When my travel destination fails to meet my expectations, I speak negatively about it with family and friends	x			
If things go wrong on my travel, I make sure that I claim my travel insurance	x			
I purposely surround myself with positive people on my travels				
I learn lessons for future travel out of adverse travel experiences (e.g. looking better after my finances, being better prepared, always informing others of my whereabouts)	x			
When things go wrong on my travels, I use it as an opportunity to plan an even better alternative	x	x	x	
If things go wrong during my travels, I quickly come up with a solution without getting flustered	x	x	x	

People around me often remark that travel setbacks put me into a bad mood	x			
I easily mentally recover from experiencing unforeseen changes on my travels	x			
I can easily change my travel plans if service providers have done mistakes with any of my bookings	x			
I generally alter my travel itinerary when unforeseen changes arise right before I go travelling (e.g. get sick, family emergency)	x			
When I have an unpleasant travel experience I usually bounce back quickly			x	
I learn from past travel setbacks to improve my next travel experiences			x	
If a tourism service provider makes a mistake with my booking, I easily adjust my travel plans	x	x	x	
I am happy to find suitable alternatives (e.g. other places, experiences) when my travel plans are disrupted	x	x	x	
I am able to quickly reprioritise how to spend my money in case of unexpected expenses on my travels	x			
I usually find an effective solution to unexpected problems I face on my travels	x	x	x	
I only travel to destinations that in my view are different from my place of residence or home country				
I usually offer to help locals facing problems even if that means I might need to delay/adapt my travel plans (TouRes3_3)	**x**	**x**	**x**	**x**
I usually offer to help other tourists facing problems even if that means I might need to delay/adapt my travel plans (TouRes3_4)	**x**	**x**	**x**	**x**
If I am faced with an unexpected setback (e.g. cancellation) I ask locals for suggestions on alternative activities/experiences (TouRes3_5)			**x**	**x**
If I am faced with a travel setback I rely on my personal network (online or local) to explore suitable solutions			x	
I will go out of my way to help my travel companion(s) if they face a travel setback			x	

Note. Items in **bold** are part of the final 18-item TouRes Scale

Appendix B

Information Sheet for Study 1

Tourist Preferences Scale
Information for Survey Participants

This research is being conducted through the University of Canterbury and will explore tourist preferences and typical behaviours.

If you choose to take part in this study, your involvement in this project will be **completing an online survey. The survey will take approximately 8 to 10 minutes.**

Participation is voluntary, and you have the right to withdraw at any stage without penalty. Once participants have completed the survey, participants who want to be entered into **the prize draw for 1 of 3 $150 Amazon gift cards** will be directed to a separate link to provide contact details. This page is in no way linked to their survey responses.

The results of the project may be published but you can be assured of the complete anonymity of data gathered in this investigation. Data will be stored on a password-protected computer. Only the named researchers will have access to data (on a password locked computer). A dissertation is a public document and will be available through the UCLibrary.

The project is being carried out as a requirement for the completion of a Master's of Applied Psychology by Miriam Gottschalk under the supervision of Joana Kuntz who can be contacted at joana.kuntz@canterbury.ac.nz and Girish Prayag who can be contacted at girish.prayag@canterbury.ac.nz. They would be pleased to discuss any concerns you may have about participation in this project.

This project has been approved by the University of Canterbury Human Ethics Committee, and participants should address any complaints to The Chair, Human Ethics Committee, University of Canterbury, Private Bag 4800, Christchurch (human-ethics@canterbury.ac.nz).

For **Mobile phone users**: PLEASE **PLACE PHONE SIDEWAYS** FOR BEST SURVEY DISPLAY

If you agree to participate in the study, please **click** the **Red Arrow** below to start the survey.

Appendix C

Demographic data Study 1

Table C1

Frequencies of Nationality

Levels	Counts	% of Total	Cumulative %
New Zealand	175	67.3 %	67.3 %
American	13	5.0 %	72.3 %
European	1	0.4 %	72.7 %
Finnish	2	0.8 %	73.5 %
Danish	1	0.4 %	73.8 %
Indian	1	0.4 %	74.2 %
German	16	6.2 %	80.4 %
Canadian	1	0.4 %	80.8 %
UK	16	6.2 %	86.9 %
Timor Leste	1	0.4 %	87.3 %
NZ/Swiss	1	0.4 %	87.7 %
Singaporean	1	0.4 %	88.1 %
Missing	5	1.9 %	90.0 %
Australian	10	3.8 %	93.8 %
UK/NZ	1	0.4 %	94.2 %
NZ/UK	9	3.5 %	97.7 %
NZ/Australian	1	0.4 %	98.1 %
Romanian	1	0.4 %	98.5 %
Swedish	1	0.4 %	98.8 %
German/NZ	1	0.4 %	99.2 %
French	1	0.4 %	99.6 %
NZ/Samoan	1	0.4 %	100.0 %

Table C2

Frequencies of TRAVEL COMPANY

Levels	Counts	% of Total	Cumulative %
Alone	38	14.9 %	14.9 %
Partner/Family	78	30.6 %	45.5 %
Friends	18	7.1 %	52.5 %
Other Tourists	1	0.4 %	52.9 %
Alone + Partner/Family	11	4.3 %	57.3 %
Alone + Friends	13	5.1 %	62.4 %
Alone + Other Tourists	2	0.8 %	63.1 %
Partner/Family+ Friends	43	16.9 %	80.0 %
Partner/Family+ Other Tourists	1	0.4 %	80.4 %
Alone+ Partner/Family+ Friends	25	9.8 %	90.2 %
Alone+ Partner/Family+ Other Tourists	1	0.4 %	90.6 %
Partner/Family+ Friends+ Other Tourists	4	1.6 %	92.2 %
Alone+ Friends+ Other Tourists	14	5.5 %	97.6 %
Alone+ Partner/Family + Friends+ Other Tourists	6	2.4 %	100.0 %

Table C3

Frequencies of Return verses New Visitors to a destination

Levels	Counts	% of Total	Cumulative %
Mainly Return Visitor	47	18.1 %	18.1 %
Mainly New Visitor	127	48.8 %	66.9 %
Equally Return and New Visitor to different places	81	31.2 %	98.1 %
Missing	5	1.9 %	100.0 %

Table C4

Frequencies of MAIN PURPOSE

Levels	Counts	% of Total	Cumulative %
Holiday/Vacation	98	38.4 %	38.4 %
Visiting Friends and Family	19	7.5 %	45.9 %
Business+ Conference+ Education	3	2.4%	48.2 %
Holiday/Vacation+ Visiting Friends and Family	75	29.4%	77.6%
Holiday/Vacation+ Visiting Friends and Family+ Business	13	5.1%	82.7%
Other*	5	17.3%	100.0 %

* Other are a combination of all possible levels, each computing with less than 2% each

Table C5

Frequencies of International Travel

Levels	Counts	% of Total	Cumulative %
One time	31	12.0 %	12.0 %
Two to four times	105	40.5 %	52.5 %
Five to six times	31	12.0 %	64.5 %
Seven times or more	88	34.0 %	98.5 %
Missing	4	1.5 %	100.0 %

Appendix D

Information Sheet for Study 2

Tourist Preferences Scale

Information for Survey Participants

This research, conducted as part of a Masters project at the University of Canterbury, examines tourist preferences and typical behaviours.

If you choose to take part in this study, your involvement in this project will be completing an online survey. The survey will take approximately **10 minutes**.

Participation is voluntary, and you have the right to withdraw at any stage without penalty. Once you have completed the survey, you may choose to be entered into the prize draw for **1 of 3 US$100 Amazon Gift Cards** and be directed to a separate link to provide contact details.

The results of the project may be published but you can be assured of the **complete anonymity of data** gathered in this investigation. Data will be stored on a password-protected computer and only the named researchers will have access to the data. A dissertation is a public document and will be available through the UC Library.

The project is being carried out as a requirement for the completion of a Masters of Applied Psychology by Miriam Gottschalk under the supervision of Joana Kuntz who can be contacted at joana.kuntz@canterbury.ac.nz and Girish Prayag who can be contacted at girish.prayag@canterbury.ac.nz. They would be pleased to discuss any concerns you may have about participating in this project.

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If you agree to participate in the study, please click the **Red Arrow** below to start the survey.

Appendix E

Table E1

Confirmatory Factor Analysis of TouRes 18-item scale with Resilience

Factor Loadings

				95% Confidence Interval				
Factor	**Indicator**	**Estimate**	**SE**	**Lower**	**Upper**	**Z**	**p**	**Stand. Estimate**
Adapt/Cont	TouRes1_1	0.74	0.06	0.63	0.85	13.29	< .001	.75
	TouRes1_2	0.66	0.05	0.57	0.76	13.62	< .001	.77
	TouRes1_3	0.70	0.06	0.58	0.81	11.83	< .001	.68
Adapt/Coh	TouRes1_5	0.65	0.07	0.52	0.77	9.77	< .001	.57
	TouRes2_4	0.96	0.06	0.84	1.07	16.05	< .001	.84
	TouRes2_5	1.01	0.07	0.88	1.14	15.57	< .001	.82
Adapt/Conn	TouRes3_3	0.95	0.06	0.84	1.06	17.10	< .001	.91
	TouRes3_4	0.82	0.06	0.71	0.92	14.94	< .001	.81
	TouRes3_5	0.57	0.06	0.50	0.69	9.30	< .001	.54
Prep/Cont	TouRes3_8	0.69	0.08	0.54	0.84	9.17	< .001	.58
	TouRes3_9	1.00	0.08	0.84	1.17	11.91	< .001	.73
	TouRes4_3	0.91	0.07	0.77	1.06	12.29	< .001	.75
Prep/Coh	TouRes4_6	0.85	0.06	0.73	0.97	13.77	< .001	.73
	TouRes5_1	1.00	0.05	0.90	1.10	19.70	< .001	.93
	TouRes5_2	0.91	0.05	0.80	1.01	16.92	< .001	.84
Prep/Conn	TouRes5_4	0.69	0.07	0.55	0.83	9.68	< .001	.62
	TouRes5_5	0.76	0.07	0.63	0.88	11.66	< .001	.79

	TouRes5_6	0.63	0.08	0.47	0.79	7.71	< .001	.53
Resilience	RSC1_1	0.52	0.04	0.44	0.60	12.79	< .001	.70
	RSC1_2	0.63	0.04	0.55	0.71	14.71	< .001	.77
	RSC1_3	0.46	0.06	0.35	0.57	8.14	< .001	.48
	RSC1_4	0.53	0.05	0.42	0.63	9.87	< .001	.57
	RSC1_5	0.51	0.05	0.42	0.61	10.67	< .001	.60
	RSC2_1	0.42	0.04	0.34	0.50	9.95	< .001	.57
	RSC2_2	0.53	0.05	0.43	0.62	10.81	< .001	.61
	RSC2_3	0.67	0.05	0.57	0.77	13.22	< .001	.72
	RSC2_4	0.62	0.05	0.52	0.71	12.97	< .001	.71
	RSC2_5	0.51	0.05	0.41	0.62	9.76	< .001	.57

Table E2

Confirmatory Factor Analysis of TouRes 18-item scale with Proactive Personality

Factor Loadings

				95% Confidence Interval				
Factor	**Indicator**	**Estimate**	**SE**	**Lower**	**Upper**	**Z**	**p**	**Stand. Estimate**
Adapt/Cont	TouRes1_1	0.75	0.06	0.64	0.86	13.12	< .001	.76
	TouRes1_2	0.64	0.05	0.54	0.73	12.75	< .001	.74
	TouRes1_3	0.72	0.06	0.60	0.84	11.97	< .001	.70
Adapt/Coh	TouRes1_5	0.65	0.07	0.52	0.78	9.81	< .001	.58
	TouRes2_4	0.96	0.06	0.84	1.07	16.10	< .001	.84
	TouRes2_5	1.01	0.06	0.88	1.13	15.53	< .001	.82
Adapt/Conn	TouRes3_3	0.95	0.06	0.84	1.06	17.14	< .001	.91

	TouRes3_4	0.82	0.06	0.71	0.92	14.90	< .001	.81
	TouRes3_5	0.57	0.06	0.45	0.69	9.30	< .001	.54
Prep/Cont	TouRes3_8	0.70	0.08	0.55	0.85	9.25	< .001	.59
	TouRes3_9	1.00	0.08	0.83	1.16	11.83	< .001	.72
	TouRes4_3	0.91	0.07	0.77	1.06	12.25	< .001	.75
Prep/Coh	TouRes5_1	1.00	0.05	0.90	1.10	19.67	< .001	.93
	TouRes5_2	0.91	0.05	0.80	1.01	16.95	< .001	.84
	TouRes4_6	0.85	0.06	0.73	0.97	13.78	< .001	.73
Prep/Conn	TouRes5_4	0.69	0.07	0.55	0.83	9.63	< .001	.61
	TouRes5_5	0.76	0.07	0.64	0.89	11.64	< .001	.79
	TouRes5_6	0.62	0.08	0.46	0.78	7.60	< .001	.53
PPS	PPS_7	0.36	0.05	0.26	0.45	7.21	< .001	.46
	PPS_8	0.63	0.05	0.53	0.73	11.99	< .001	.73
	PPS_9	0.45	0.06	0.33	0.56	7.63	< .001	.49
	PPS_10	0.55	0.05	0.46	0.65	11.34	< .001	.69
	PPS_11	0.37	0.05	0.28	0.46	8.14	< .001	.53
	PPS_12	0.62	0.05	0.523	0.73	11.68	< .001	0.70